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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,853	09/18/2003	Didier Doyen	PF020120	8398

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PATENT OPERATIONS
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EXAMINER

GOKHALE, SAMEER K

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/665,853	Applicant(s) DOYEN ET AL.	
	Examiner Sameer K. Gokhale	Art Unit 2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 1-5, claim 1 contains the recitation that "if $GL1 > GL2$, then the temporal centre of gravity of the illumination generated by the video word VW1 is greater than that generated by the video word VW2" on lines 18-21. The enablement of this limitation is questioned because the specification shows that at high video levels the temporal centre of gravity decreases as shown in Fig. 9, therefore at such high video levels the temporal centre of gravity for VW1 is less than VW2.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claims 3 and 5, claim 3 recites the limitation "'the video word not selected in step (c)'" in lines 11-12. This limitation is

indefinite because it is not clear that there is a single video word that is not selected in step (c) of the claim because step (c) only mentions the video words that are selected.

It is noted to applicant that due to the above rejection under 35 U.S.C. 112, the following rejections are based on the claims as best understood by the examiner.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevet et al. (US 6,201,519) (hereafter, "Chevet") in view of Thebault et al. (EPO 01250158.1) (hereafter, "Thebault").

Regarding claim 1, Chevet teaches a method of coding a video image displayed on a plasma display panel (see col. 1, line 6) comprising a plurality of cells arranged in rows and columns (see col. 1, lines 51-52), the video levels of the pixels of the image being defined by n-bit video words (see col. 4, lines 38-40), each bit, depending on its state, illuminating or not illuminating the cell to which it is addressed for a specific time called the subfield (see col. 4, lines 38-40, where a "sub-scan" is the same as a subfield), characterized in that, for video levels GL1 and GL2 (see col.6, lines 45-46, where NG1 and NG2 are the video levels) to be displayed by a pair of cells (C1, C2) situated in the same column and in two adjacent rows of the panel (see col. 5, lines 61-

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63, where lines l and $l+1$ denote cells in adjacent rows and in the same column), video words $VW1$ and $VW2$ are selected (see col. 7, lines 27-30, where $VF1$ and $VF2$ are the video words selected), the said words comprising at least one common bit addressed simultaneously to the two cells at the moment of displaying the image (see col. 5, lines 61-64) and corresponding to levels equal or approximately equal to the video levels $GL1$ and $GL2$ (see col. 7, lines 27-30). However, Chevet does not teach a method such that, if $GL1 > GL2$, then the temporal centre of gravity of the illumination generated by the video word $VW1$ is greater than that generated by the video word $VW2$.

However, Thebault does teach a method such that, if $GL1 > GL2$, then the temporal centre of gravity of the illumination generated by the video word $VW1$ is greater than that generated by the video word $VW2$ (Fig. 14, see page 6, lines 1-4, where the centre of gravity grows continuously and therefore $VW1$ is greater than $VW2$ when $GL1$ is greater than $GL2$).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Thebault in the video word selection method of Chevet, where the motivation to combine is to have process of selecting the final video words out of a set of words limited to those of an increasing centre of gravity to better reduce the effects of false contouring.

Regarding claim 2, Chevet teaches a method characterized in that the video words $VW1$ and $VW2$ selected comprise k common bits, each common bit being simultaneously addressed to the two cells of the pair during what is called a common

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subfield, k being greater than 1 (see col. 10, lines 33-38, where there is more than one common bit utilized thus k equals 6 in the case described).

Regarding claim 3, Chevet teaches a method characterized in that, to select the video words VW1 and VW2, the following steps are carried out: the video words whose corresponding video levels GL1' and GL2' are equal or approximately equal to the video levels GL1 and GL2 (see col. 7, lines 27-30), respectively, are determined from a set of video words (see col. 7, lines 27-30, where the set of video words that is chosen from is the set of all possible video words); one or other of the video words determined in the previous step is selected (see col. 7, lines 27-30); and the selection is from all the possible video word having bits with the same value as the video words selected for the common subfields (see col. 7, lines 20-22, where the use of common value 'VC' as a factor in deciding VF indicates that the selection is from possible video words having common subfield bits). However, Chevet does not teach a set of p video words whose temporal centre of gravity increases continuously as the corresponding video level increases is defined, nor does Chevet teach selecting the video word whose temporal centre of gravity and video level are closest to those of the original video level.

However, Thebault does teach a set of p video words whose temporal centre of gravity increases continuously as the corresponding video level increases is defined (Fig. 14, see page 6, lines 1-4), and Thebault teaches selecting the video word whose temporal centre of gravity and video level are closest to those of the original video level (Fig. 14, and see page 22, lines 31-35, where it is described how from a subset of

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acceptable video levels the video level that is chosen has a center of gravity closest to the original video level).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Thebault in the video word selection method of Chevet, where the motivation to combine is to have process of selecting the final video words out of a set of words limited to those based on the temporal centre of gravity of the words to better reduce the effects of false contouring.

Regarding claim 4, Chevet teaches a method characterized in that, in order to select the video words VW1 and VW2, the following steps are carried out: the pair of video words whose corresponding video levels GL1' and GL2' are equal or approximately equal to the video levels GL1 and GL2 (see col. 7, lines 27-30), respectively, are determined from a set of video words, (see col. 7, lines 27-30, where the set of video words that is chosen from is the set of all possible video words); and the pair of video words is selected from all the possible video words having bits with the same value as the video word selected for the common subfields (see col. 7, lines 20-22, where the use of common value 'VC' as a factor in deciding VF indicates that the selection is from possible video words having common subfield bits). However, Chevet does not teach a set of p video words whose temporal centre of gravity increases continuously as the corresponding video level increases is defined, nor does Chevet teach selecting a video word whose temporal centre of gravity and video level is closest to that of a video word chosen in the initial approximation of GL1' and GL2'.

However, Thebault does teach a set of p video words whose temporal centre of gravity increases continuously as the corresponding video level increases is defined (Fig. 14, see page 6, lines 1-4), and Thebault teaches selecting the video word whose temporal centre of gravity and video level are closest to those of a video level approximately equal to the original video level (Fig. 14, and see page 22, lines 31-35, where it is described how from a subset of acceptable video levels the video level that is chosen has a center of gravity closest to the original video level).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Thebault in the video word selection method of Chevet, where the motivation to combine is to have process of selecting the final video words out of a set of words limited to those based on the temporal centre of gravity of the words to better reduce the effects of false contouring.

Regarding claim 5, Chevet in view of Thebault teaches a coding system for a plasma display panel, characterized in that it implements the coding method according to one of claims 1 to 4 (It is inherent that Chevet in view of Thebault teach the coding system according to the methods of claims 1 to 4 discussed above).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Benoit et al. (US 6,370,275) teaches a process for scanning a plasma display where adjacent rows share common subfields. Weitbruch et al. (US

6,473,464) teaches a method for dealing with false contour effects. Zhu et al. (US 5,841,413) teaches a method that increases the number of subfields to reduce false contour effects.

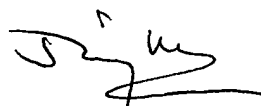
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameer K. Gokhale whose telephone number is (571) 272-5553. The examiner can normally be reached on M-F 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKG
January 30, 2006

Sameer Gokhale
Examiner
Art Unit 2673


JIMMY NGUYEN
PRIMARY EXAMINER